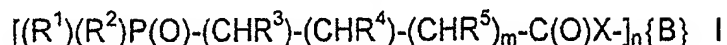


WHAT IS CLAIMED IS:

1. A compound of the formula (I)



in which the residues and indices have the following meanings:

X is O, NH, NR⁶ or S,

R¹ and R² are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl or optionally substituted alkoxy, alkenyloxy, aryloxy, alkylaryloxy or arylalkyloxy,

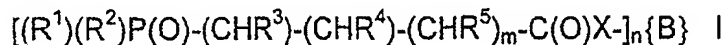
R³, R⁴, R⁵ and R⁶ are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl,

{B} is a straight-chain or branched residue with at least one organically polymerizable group and at least 2 carbon atoms,

m is an integer from 0 to 20,

n is an integer from 1 to 20.

2. A compound of the formula (I)



in which the residues and indices have the following meanings:

X is O, NH, NR⁶ or S,

R¹ and R² are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl or optionally substituted alkoxy, alkenyloxy,

aryloxy, alkylaryloxy or arylalkyloxy,

R^3 , R^4 , R^5 and R^6 are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl,

{B} is a straight-chain or branched residue with at least one organically polymerizable group and at least 2 carbon atoms,

m is an integer from 0 to 20,

n is an integer from 1 to 20,

apart from:

[4-oxo-4-(2-propenylamino)butyl]phenylphosphinic acid ethyl ester, [4-oxo-4-(2-propenylamino)butyl]phosphonic acid diethyl ester; compounds of the formula

$(R^eO)_2P(O)CH_2CHR^aCONHCH_2NHCOCR^b=CR^cR^d$ with R^2 = methyl or butyl, R^a = H or methyl, R^b = H, CH_2CO_2H or methyl, R^c = H and R^d = H, methyl, $CONH_2$ or CO_2H ;

$CH_2=C(R^f)C(O)O(CH_2)_xO(CO)CH(R^g)CH_2-P(O)R^i(OR^k)$ and

$CH_2=C(R^f)CH_2O(CO)CH(R^g)CH_2-P(O)R^i(OR^k)$ with R^f and R^g = hydrogen or methyl, R^k = C_1 - C_{18} -alkyl, benzyl or phenyl, R^i = hydrogen or a C_1 - C_4 -alkyl and x = 1 to 30, and also compounds in which {B} exhibits one or more isolated or oligomerized isoprene group(s).

3. The compound of the formula (I) as claimed in claim 1 or 2, characterized in that the residues R^1 , R^2 , R^3 , R^4 , R^5 and R^6 in each case comprise 1-6 carbon atoms for open-chain aliphatic groups and in each case comprise 6 to 12 carbon atoms for cycloaliphatic or aromatic groups.

4. The compound of the formula (I) as claimed in one of claims 1 to 3, characterized in that the substituents of the groups R^1 , R^2 , R^3 , R^4 , R^5 and R^6 are chosen from halogen, amino groups, oxygen-comprising residues and/or sulfur-comprising residues.

5. The compound of the formula (I) as claimed in one of the preceding claims, characterized in that R^1 and R^2 are both hydroxyl or that R^1 and R^2 are both optionally substituted alkoxy, alkenyloxy, aryloxy, alkylaryloxy or arylalkyloxy or that R^1 is optionally substituted alkoxy, alkenyloxy, aryloxy, alkylaryloxy or arylalkyloxy and R^2 is optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl or that R^1 is OH and R^2 is optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl or that R^1 and R^2 are both hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl.

6. The compound of the formula (I) as claimed in one of the preceding claims, characterized in that X is NH or NR^6 or oxygen and is particularly preferably oxygen.

7. The compound of the formula (I) as claimed in one of the preceding claims, characterized in that m is 0, 1, 2, 3 or 4 and/or that n is 1, 2, 3 or 4.

8. The compound of the formula (I) as claimed in claim 7, characterized in that m is 0 and/or that n is 1.

9. The compound of the formula (I) as claimed in one of the preceding claims, characterized in that {B} exhibits 2 to

50 carbon atoms, preferably at least 4 carbon atoms, and at least one C=C double bond as polymerizable group.

10. The compound of the formula (I) as claimed in one of the preceding claims, characterized in that {B} exhibits at least one, preferably at least two, vinyl, allyl, norbornene, glycidyl, acrylate, methacrylate, thioacrylate or thiomethacrylate group(s) or group(s) derived from (meth)acrylamides.

11. The compound of the formula (I) as claimed in claim 10, characterized in that {B} exhibits at least one, preferably at least two, norbornene, glycidyl, acrylate, methacrylate, thioacrylate or thiomethacrylate group(s) or group(s) derived from (meth)acrylamides and/or that X represents oxygen.

12. The compound of the formula (I) as claimed in claim 11, characterized in that X represents oxygen and/or that the residue {B} comprises at least one, preferably at least two, Michael systems, in particular acrylate, methacrylate and/or glycidyl group(s).

13. The compound of the formula (I) as claimed in claim 12, characterized in that {B} comprises a carbon backbone derived from an oligoalcohol, one or more of the hydroxyl functional groups of the oligoalcohol being esterified with one or more acrylate and/or methacrylate groups.

14. The compound of the formula (I) as claimed in claim 13, characterized in that the oligoalcohol exhibits a carbon backbone with three to 15 carbon atoms.

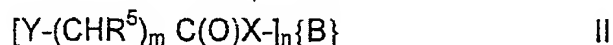
15. The compound of the formula (I) as claimed in claim 14, characterized in that the oligoalcohol is a di-, tri-, tetra- or pentaalcohol.

16. The compound of the formula (I) as claimed in one of claims 13 to 15, characterized in that the oligoalcohol is chosen from glycol, glycerol, trimethylolpropane or pentaerythritol.

17. The compound of the formula (I) as claimed in one of claims 13 to 16, characterized in that the X is oxygen and can be understood as additional hydroxyl functional group of the oligoalcohol.

18. The compound of the formula (I) as claimed in claim 17, characterized in that {B} exhibits no additional groups, over and above the above-mentioned carbon backbone derived from an oligoalcohol and the acrylate and/or methacrylate groups esterified therewith.

19. A process for the preparation of the compound of the formula (I) as defined in one of the preceding claims, characterized in that compounds of the formula (II)



are reacted with compounds of the formula (III)



20. The process as claimed in claim 19, characterized in that the residues R^1 and R^2 represent C_1 - C_6 -alkoxy, preferably methoxy or ethoxy.

21. The process as claimed in claim 20 for the preparation of compounds with the formula (I) in which the residues R^1 and R^2 represent hydroxyl, characterized in that the product of the reaction of the compound with the formula (II) with the compound of the formula (III) is subjected to hydrolysis.

22. The process as claimed in one of claims 19 to 21, characterized in that n in the compound with the formula (II) is greater than 1, preferably 2 or 3, and that 1 mol of this compound is reacted with less than n mol of the compound with the formula (III), n having the same meaning as in formula (II), in order to obtain a mixture with a compound of the formula (I), in which n is greater than 1 and preferably represents 2 or 3, and a compound of the formula (II), in which n represents 1 and in which the group {B} comprises at least one residue $[Y-(CHR^5)_mC(O)X-]$.

23. A homopolymer of a compound of the formula (I)



in which the residues and indices have the following meanings:

X is O, NH, NR^6 or S,

R^1 and R^2 are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or

arylalkyl or optionally substituted alkoxy, alkenyloxy, aryloxy, alkylaryloxy or arylalkyloxy,

R^3 , R^4 , R^5 and R^6 are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl,

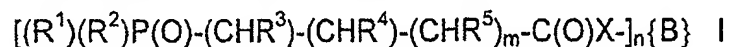
{B} is a straight-chain or branched residue with at least one organically polymerizable group and at least 2 carbon atoms,

m is an integer from 0 to 20,

n is an integer from 1 to 20.

24. The homopolymer as claimed in claim 23, wherein the residues and indices given in formula (I) have the meanings given in one of claims 3 to 18.

25. A copolymer of different compounds of the formula (I)



in which the residues and indices have the following meanings:

X is O, NH, NR^6 or S,

R^1 and R^2 are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl or optionally substituted alkoxy, alkenyloxy, aryloxy, alkylaryloxy or arylalkyloxy,

R^3 , R^4 , R^5 and R^6 are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl,

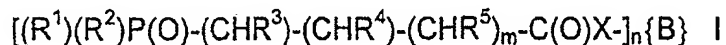
{B} is a straight-chain or branched residue with at least one organically polymerizable group and at least 2 carbon atoms,

m is an integer from 0 to 20,

n is an integer from 1 to 20.

26. The copolymer as claimed in claim 25, wherein the residues and indices given in formula (I) have the meanings given in one of claims 3 to 18.

27. A copolymer formed by the use of monomer units of the formula (I) or of block polymer units constructed from monomers of the formula (I)



in which the residues and indices have the following meanings:

X is O, NH, NR⁶ or S,

R¹ and R² are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl or optionally substituted alkoxy, alkenyloxy, aryloxy, alkylaryloxy or arylalkyloxy,

R³, R⁴, R⁵ and R⁶ are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl,

{B} is a straight-chain or branched residue with at least one organically polymerizable group and at least 2 carbon atoms,

m is an integer from 0 to 20,

n is an integer from 1 to 20.

28. The copolymer as claimed in claim 27, wherein the residues and indices given in formula (I) have the meanings given in one of claims 3 to 18.